



AS-5M18

Amerisolar's photovoltaic modules are designed for large electrical power requirements. With a 30-year warranty, AS-5M18 offers higher-powered, more reliable performance for both on-grid and off-grid solar projects.

Key Features

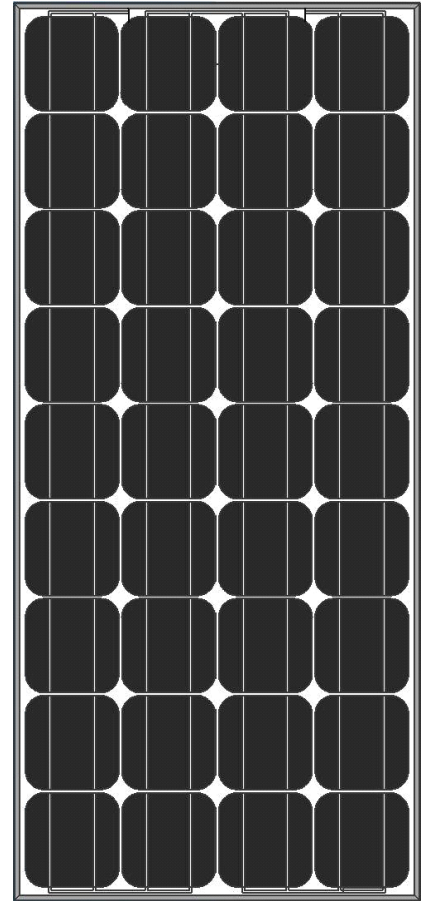
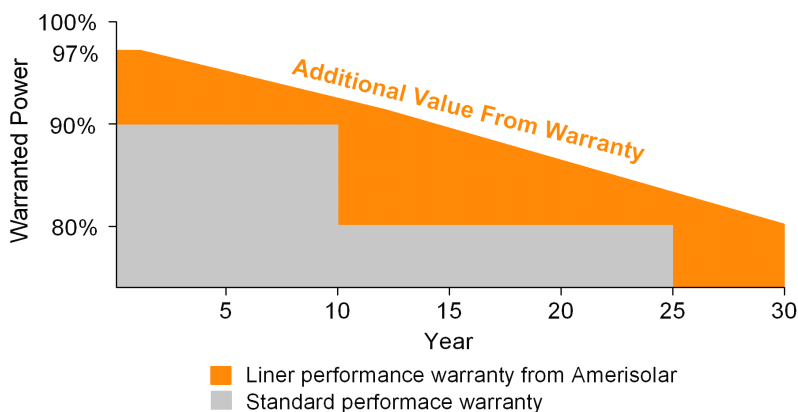
- High module conversion efficiency up to 16.11% through superior manufacturing technology.
- Low degradation and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa.
- Positive power tolerance of 0 ~ +3 %.
- High ammonia and salt mist resistance.

Quality Certificates

- IEC61215, IEC61730, IEC62716, IEC61701, UL1703, CE, MCS, CEC, Israel Electric, Kemco
- ISO9001:2008: Quality management system
- ISO14001:2004: Environmental management system
- OHSAS18001:2007: Occupational health and safety management system

Special Warranties

- 12 year limited product warranty.
- Limited power warranty: 12 years 91.2% of the nominal power output, 30 years 80.6% of the nominal power output.



Electrical Characteristics

Electrical parameters at STC				
Nominal Power (P_{max})	90W	95W	100W	105W
Open Circuit Voltage (V_{oc})	22.2V	22.4V	22.6V	22.8V
Short Circuit Current (I_{sc})	5.38A	5.56A	5.75A	5.90A
Voltage at Nominal Power (V_{mp})	18.0V	18.2V	18.4V	18.6V
Current at Nominal Power (I_{mp})	5.00A	5.22A	5.43A	5.65A
Module Efficiency (%)	13.81	14.57	15.34	16.11

STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5

Electrical parameters at NOCT				
Nominal Power (P_{max})	66W	69W	73W	77W
Open Circuit Voltage (V_{oc})	20.4V	20.6V	20.8V	21.0V
Short Circuit Current (I_{sc})	4.36A	4.50A	4.66A	4.78A
Voltage at Nominal Power (V_{mp})	16.4V	16.6V	16.7V	16.9V
Current at Nominal Power (I_{mp})	4.03A	4.16A	4.38A	4.56A

NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1 m/s

Mechanical Characteristics

Cell type	Monocrystalline 125x125mm
Number of cells	36 (4x9)
Module dimension	1196x545x35mm
Weight	8kg
Front cover	3.2mm low-iron tempered glass
Frame	Anodized aluminum alloy
Junction box	IP65, 2 diodes
Cable	4mm ² , 900mm
Connector	MC4 or MC4 compatible
Standard packaging	28pcs/pallet
Module quantity per container	672pcs/20'GP

Temperature Characteristics

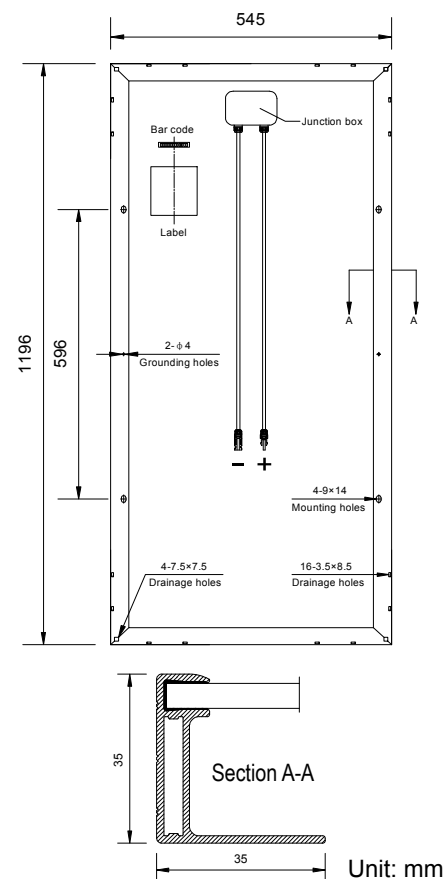
Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.43%/°C
Temperature Coefficients of V_{oc}	-0.33%/°C
Temperature Coefficients of I_{sc}	0.056%/°C

Maximum Ratings

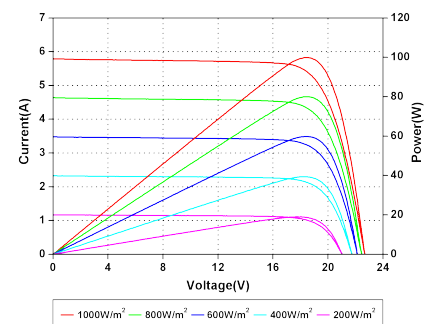
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	10A

Specifications in this datasheet are subject to change without prior notice.

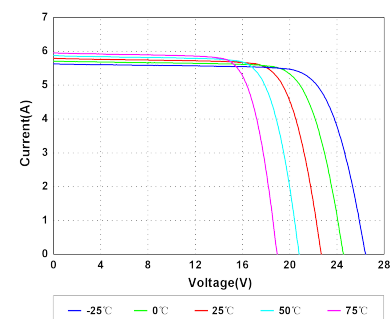
Drawings



I-V Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures